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(FILE 'HOME' ENTERED AT 08:29:56 ON 24 MAY 2007)
FILE 'CA' ENTERED AT 08:30:24 ON 24 MAY 2007
E MARINYUK V/AU
L1 24 S E4
E SURIN N/AU
L2 5 S E6-9 AND PY<2000 AND PY>1995
L3 29 S L1-2

=> d bib,ab l3 1-29

L3 ANSWER 15 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 104:118435 CA
TI Interpretation of the dependences on the electrode potential of the spectral line intensity of the Raman spectrum of pyridine adsorbed on silver
AU **Marinyuk, V. V.**
CS Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow, USSR
SO Elektrokhimiya (1986), 22(2), 282-4
LA Russian
AB The influence was investigated of the electrode potential on the relative positions of levels of mols. and metals. To study the dependence of the intensity of the Raman spectra of the adsorbate on E, caused by the effect of the potential on the state of the adsorbed mol., it is not necessary to operate under conditions where the quantity of mols., for which one observes an intensified adsorption by Raman scattering, does not depend on E. Such a situation possibly occurs in the case of preliminary holding of the electrodes for several minutes at a sufficiently neg. potential E .simeq. -1 V (vs. a satd. AgCl electrode). The Raman resonance of the adsorbed mol. is caused by the band of charge transfer between the metal and adatoms of the metal, with which the mols. form complexes.

L3 ANSWER 17 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 97:134162 CA
TI Surface enhanced Raman scattering induced by silver adatoms on platinum
AU **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.; Kolotyrkin, Ya. M.
CS L. Ya. Karpov Inst. Phys. Chem., Moscow, 107120, USSR
SO Solid State Communications (1982), 43(10), 721-5
AB Surface enhanced Raman scattering (SERS) from adsorbed pyridine caused by coadsorbed Ag atoms on Pt was obsd. Silver adatoms on Pt induced surface absorption band near 3.5 eV. Mechanisms of the SERS in presence of metal adatoms are discussed.

L3 ANSWER 18 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 96:171316 CA
TI Optical properties of adsorbed atoms and resonance Raman scattering by adsorbed molecules on electrodes
AU **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.; Kolotyrkin, Ya. M.
CS Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow, USSR
SO Elektrokhimiya (1982), 18(3), 307-11
LA Russian
AB Different points of view were examd. from the aspect of the theory of

optical properties of adsorbed atoms on the origin of the amplification of Raman scattering during the adsorption of mols. Taking into account this theory of coupled electron states in systems of adatoms-metals explains the resonance character of the Raman excitation spectra of adsorbate mols forming complexes with adsorbed atoms of the metal.

L3 ANSWER 20 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 95:75747 CA
TI Anomalously intense Raman spectra of some biological molecules adsorbed on silver electrodes
AU Nabiev, I. R.; Trakhanov, S. D.; Efremov, E. S.; **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.
CS Moscow Phys. Eng. Inst., Moscow, USSR
SO Bioorganicheskaya Khimiya (1981), 7(6), 941-5
LA Russian
AB Surface-enhanced Raman spectra of aq. solns. of arom. amino acids (phenylalanine, tryptophan, tyrosine, and histidine), as well as of leucine-isoleucine-valine (LIV) binding and leucine-specific (LS) proteins adsorbed on silver electrodes were obtained. The concns. of aq. solns. of these compds. were 0.5-1.0 mg/mL, i.e., 2 orders of magnitude less than those required for obtaining the non-resonance Raman spectra of proteins and peptides. Surface-enhanced Raman spectra were not obsd. for glutamine and leucine adsorbed on silver electrodes. The ratio of band intensities in Raman spectra changed at various potentials. Tentative band assignments in the surface-enhanced Raman spectra of LIV and LS proteins were proposed. Substrate (L-leucine) binding by adsorbed LS protein affected the state of its tryptophan, tyrosine, and phenylalanine residues.

L3 ANSWER 21 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 95:51962 CA
TI Study of background signals in Raman spectra of a silver electrode surface
AU **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.; Kolotyrkin, Ya. M.
CS Nauchno-Issled. Inst. Fiz.-Khim. im. Karpova, Moscow, USSR
SO Elektrokhimiya (1981), 17(5), 643-8
LA Russian
AB The anomalous background intensity in the Raman spectra at the Ag electrode surface is coupled with the presence of adatoms. The dependence of the background on the potential agrees with the analogous Raman spectral line intensity of adsorbates (pyridine, Cl- ion). At frequencies greater than 200 cm-1 the background is caused by electronic Raman scattering but at less than 200 cm- it is caused by Rayleigh light scattering by adatoms-adsorbates.

L3 ANSWER 22 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 93:175923 CA
TI Nature of the interaction of adsorbate molecules with metal ad-atoms
AU **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.; Kolotyrkin, Ya. M.
CS Karpov Inst. Phys. Chem., Moscow, 107120/B-120, USSR
SO Journal of Electroanalytical Chemistry and Interfacial Electrochemistry (1980), 110(1-3), 111-18
AB By means of the measurement of the intensity ratio of Stokes and anti-Stokes lines of Raman scattering (RS) of adsorbed mols. the parameters

of the electron absorption bands responsible for the appearance of resonance Raman scattering of pyridine and cations of pyridinium and Me4N+, adsorbed on Ag, Cu, and Au, were detd. The energy of these bands does not depend on the electrode potential and is 1.92 eV on Ag, 1.55 eV on Au and 1.77 eV on Cu. The bands correspond to the electron transfer from the metal adsorbed atom that forms a complex with the adsorbate mol. to the Fermi level of the metal. The bond in the complex is formed by the partial transfer of the adsorbed atom s-electron to the adsorbate mol.

L3 ANSWER 23 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 93:174257 CA
TI Role of metal adsorbed atoms in the onset of resonance Raman light scattering by pyridine absorbed on silver
AU **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.; Kolotyrkin, Ya. M.
CS Fiz.-Khim. Inst. im. Karpova, Obninsk, USSR
SO Doklady Akademii Nauk SSSR (1980), 253(1), 155-9 [Phys. Chem.]
LA Russian
AB The resonance Raman spectra and electroreflectance spectra of pyridine adsorbed on Ag were obtained by the previously described method (L-M. et al., 1979). The results confirm the previously derived hypothesis that an optical transition of electron from adatom to metal sorbent causes the appearance of resonance Raman spectrum of pyridine.

L3 ANSWER 24 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 92:205947 CA
TI Mechanism of the appearance of an anomalously intense Raman effect during adsorption on electrodes
AU **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.
CS Nauchno-Issled. Fiz.-Khim. Inst., Moscow, USSR
SO Elektrokhimiya (1980), 16(3), 332-9
LA Russian
AB The increase in the intensity of the resonant Raman effect of pyridine and tetraalkylammonium ions on Ag, Cu, and Au after redn. of a halide salt layer on Ag or during the electrodeposition of Ag, Cu or Au is caused by the increased concn. of adsorbed metal atoms. The electron transfer corresponding to the resonance Raman effect proceeds between the local level of the adsorbed atom-adsorbate complex and the Fermi level of the metal. In the case of the adsorption of pyridine during an increase of its concn. in soln. there develops an addnl. nonresonant amplification of the signal as a consequence of the partial coherency of scattering on account of the correlation of collisions of adsorbate mols. at nearly monolayer coverage.

L3 ANSWER 25 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 90:143741 CA
TI Mechanism of the appearance of anomalously intensive Raman scattering during adsorption on electrodes
AU Lazorenko-Manevich, R. M.; **Marinyuk, V. V.**; Kolotyrkin, Ya. M.
CS Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow, USSR
SO Doklady Akademii Nauk SSSR (1979), 244(3), 641-5 [Phys. Chem.]
LA Russian
AB Raman scattering of Ag with adsorbed pyridine and of Ag with adsorbed org. cations is discussed in terms of the effects of the common

adsorption of halides. Studies of anodized Ag in solns. of different halides with the subsequent redn. of Ag halide and adsorption of these ions without anodization and electrodeposition of Ag (to form Ag adatoms) were preformed to investigate the problem. Two groups of adsorption centers producing resonant Raman scattering may be present: stable centers and relatively unstable centers (Ag adatoms). The presence of halide anions is not a necessary condition for the emergence of anomalously intense Raman scattering during adsorption on Ag.

L3 ANSWER 27 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 90:63789 CA
TI Resonance Raman effect of organic cations adsorbed on silver
AU **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.; Kolotyrkin, Ya. M.
CS Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Obninsk, USSR
SO Doklady Akademii Nauk SSSR (1978), 242(6), 1382-5 [Phys. Chem.]
LA Russian
AB The Raman spectra of the org. cations Me4N+, Et4N+, and Bu4N+ adsorbed on Ag from aq. solns., were studied. The spectra are reproduced and discussed, concluding that resonance Raman effect takes place at the Ag-adsorbed cations.

L3 ANSWER 28 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 89:97460 CA
TI Resonance Raman effect of pyridine adsorbed on silver
AU **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.; Kolotyrkin, Ya. M.
CS Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow, USSR
SO Elektrokhimiya (1978), 14(7), 1019-23
LA Russian
AB The dependence on the electrode potential (φ) of the ratio between Raman line intensities indicate the adsorption and desorption of pyridine and changes in the nature of the pyridine bond with the surface. The changes in the Raman spectra indicate changes in the orientation of the pyridine mol. of the Ag surface in relation to φ.

L3 ANSWER 29 OF 29 CA COPYRIGHT 2007 ACS on STN
AN 89:33504 CA
TI Raman scattering cross section of pyridine adsorbed on silver
AU **Marinyuk, V. V.**; Lazorenko-Manevich, R. M.
CS Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow, USSR
SO Elektrokhimiya (1978), 14(3), 452-5
LA Russian
AB The Raman scattering cross-section measurements increased in the model system of pyridine adsorbed on a Ag electrode surface and the possible reasons for this effect are considered.

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(FILE 'HOME' ENTERED AT 07:51:50 ON 24 MAY 2007)
FILE 'CA' ENTERED AT 07:52:00 ON 24 MAY 2007
E LAZARENKO/AU

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L1            21 S E68-76,E93,E113
                 E NEKRASOV /AU
L2           111 S E151,E156
                 E BRIK Y/AU
L3             4 S E3-4
                 E FETISOV I/AU
L4             3 S E11
                 E LAGUTENKO O/AU
L5             3 S E4
L6             5 S L2 AND (RAMAN OR SER OR ELECTRODE OR MICROELECTRODE)
L7           135 S GALVANODYNAMIC?
L8            72 S L7 AND (RAMAN OR SER OR ELECTRODE OR MICROELECTRODE)
L9             0 S L7 AND ADATOM
L10            5 S L8 AND (ADSOR? OR CHEMISOR?)
L11            1 S L8 AND (SILVER OR AG)
L12            1 S L7 AND (RAMAN OR SER)
L13           31 S L1,L3-6,L10-12

=> d bib,ab,kwic 1-31 l13

L13  ANSWER 16 OF 31  CA  COPYRIGHT 2007 ACS on STN
AN   96:112593  CA
TI   Interpretation of Raman spectra of a silver electrode surface in the
     2700-3000 cm1- region
AU   Marinyuk, V. V.; Lazarenko-Manevich, R. M.
CS   Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow, USSR
SO   Elektrokhimiya (1982), 18(1), 153
LA   Russian
AB   The vibrational bands found in the Raman spectra of Ag-electrode surface
     in the 2700-3000 cm-1 region were attributed to overtones of graphite C-
     C bond valence vibrations in agreement with the suggestion of J. C.
     Tsang, et al. (1980).

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